

Title (en)
METHOD FOR GENERATING A REPRESENTATION OF A WORKING AREA OF AN AUTONOMOUS LAWN MOWER AND AUTONOMOUS LAWN MOWER SYSTEM

Title (de)
VERFAHREN ZUR ERSTELLUNG EINER REPRÄSENTATION EINES ARBEITSBEREICHES EINES AUTONOMEN RASENMÄHERS UND AUTONOMES RASENMÄHERSYSTEM

Title (fr)
PROCÉDÉ POUR GÉNÉRER UNE REPRÉSENTATION D'UNE ZONE DE TRAVAIL D'UNE TONDEUSE À GAZON AUTONOME ET SYSTÈME DE TONDEUSE À GAZON AUTONOME

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Application
EP 17163251 A 20170328

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Abstract (en)
The invention regards a method for generating a representation of a working area of an autonomous lawn mower and a system including an autonomous lawn mower with at least one movement sensor, a base station and a boundary wire forming a closed loop and being connected with the base station. The autonomous lawn mower and the base station are capable to interact with each other such that the autonomous lawn mower can determine whether it is in its home position. The home position is a predetermined position that is always taken when the mower returns to the base station, for example for charging or pausing. The autonomous lawn mower further comprises a memory, for storing measured values from its at least one movement sensor. In its processor, a trajectory is generated based on the measured values, wherein the processor is further configured to calculate a total error between the position and orientation according to the calculated trajectory and the home position after reaching the home position again. This total position error and total orientation error is then used to correct the position and corresponding orientations of the calculated trajectory.

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Citation (applicant)
US 7085624 B2 20060801 - ALDRED MICHAEL DAVID [GB], et al

Citation (search report)
• [XYI] US 2012083961 A1 20120405 - SATO KAZUHISA [JP], et al
• [Y] US 2005085947 A1 20050421 - ALDRED MICHAEL D [GB], et al
• [A] US 2013218397 A1 20130822 - GRIFFINI ALBERTO [IT], et al
• [A] WO 2016097900 A1 20160623 - HUSQVARNA AB [SE]
• [A] US 2016165795 A1 20160616 - BALUTIS PAUL [US], et al

Cited by
CN114137961A

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